# The Maryland Fruit Grower

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**Edited by the Secretary, A. F. Vierheller, Extension Horticulturist**

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## *CARE OF SPRAYERS*

There was a scramble for sprayers, this winter, and some growers were disappointed and must get along with the old sprayers for at least another year. R. D. Malin, of Bean Mfg. Co., suggests the following, and this applies to all sprayers:

"Take care of your sprayer. Remember that the most important factors in good care are cleaning, lubricating, adjusting, storing, etc. Neglect of these points shortens the life of a sprayer more than the actual work it does. Make your outfit last for the duration. Clean after using. Sprayers are not only subject to wear and tear when operating, but they are also attacked by corrosive spray materials when idle. This corrosion eats away every hour the machine stands neglected after use. Run clear water through to wash it out every night during the spraying season. Keep your sprayer under shelter. Bring it in at night if there is any question as to whether it will be used the following day. A sprayer standing under a tree somewhere through carelessness and neglect cannot do its part to help feed our boys. When storing for any length of time be sure the surfaces subject to rusting are covered with a coat of oil for protection. Experience is showing that ordinary motor oil is the best protection we have for the inside of a steel tank. Keep rubber tires and hose from unnecessary exposure to the sun. Much wear will be saved if simple adjustments are made immediately when their need develops. Don't wait for a breakdown and don't wait until the end of the day for repairs. Be especially careful about lubrication. Grease and oil are doubly important now because they will save the need for parts. Work with your dealer and be patient with him. Both the implement dealer and the implement manufacturer are doing their utmost to keep machines in operation but they, like you, are greatly handicapped by lack of help and parts which are normally available. The situation calls for the greatest cooperation on the part of everybody and your part is to take the necessary daily precautions with your machine so that you will not have to call for expert assistance and repairs".

## *SPRAY POINTERS*

Don't waste spray material but don't waste your effort and crop by trying to save material. Spray thoroughly and timely. Be sure of proper proportions and thorough mixing. Check with the Spray Calendar. Don't use sulfur at temperatures above 90° F. Don't use oil sprays following too closely on sulfur sprays. At least 10 days should elapse after sulfur spray is applied before oil is safe, unless heavy rain has occurred. Some authorities even suggest 18 days between such sprays. Apply Bordeaux when it will dry rapidly. Keep in mind those varieties which russett easily and spray accordingly. Remember that weak trees are more easily spray-injured than vigorous ones. Also remember that codling moth bands should be placed around trees about mid-June, but trees should be scraped first, or the bands are of little use.

EDMUND PENDLETON COHILL

Maryland lost one of its most prominent fruit growers in the passing of Edmund P. Cohill on March 5, 1943, in his eighty-seventh year. Mr. Cohill was a charter member of The Maryland State Horticultural Society, serving as President in 1909 and 1913. Born in Elmira, New York, Mr. Cohill came to Harrisburg, Pa., with Penn Canal Company, moving later to Philadelphia, Baltimore and Williamsport in the employ of Empire Transportation Company. Moving to Hancock in 1876 he engaged in the mercantile business and was associated with local banking and county school affairs. He organized the Tonoloway Orchard Company in 1904, planting 750 acres of apples. Deeply interested in general agriculture, Mr. Cohill lectured at Farmers' Institutes in the state and Short Courses at Maryland Agricultural College. He retired from fruit growing several years ago, but never lost interest in the development of the industry.

*For - - -*

# WETTABLE
# and
# DUSTING SULPHURS

**ROTENONE**

**and**

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**TARTAR EMETIC**
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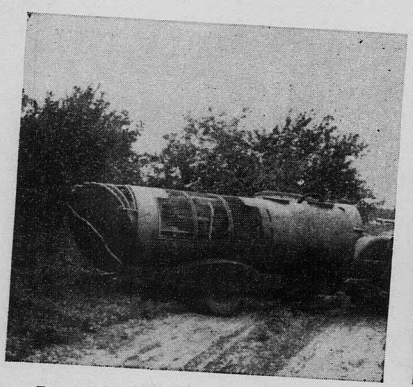
**Plant: Bayonne, New Jersey**

## *SPRAYING DEVELOPMENTS*

Last summer a field demonstration of various adaptations of spraying rigs was held in Delaware, by Messrs. K. J. Kadow and S. L. Hopperstead of University of Delaware Agricultural Experiment Station, and the following illustrations are possible through the courtesy of University of Delaware and Peninsula Horticultural Society.

These rigs show new trends in solving the spraying problem, both in manpower and in results. Some of these rigs were developed by growers, but no comparative results in pest control are available.

This rig mounted on front of truck is operated by the driver through levers and pedals. The 8-nozzle brooms may lack driving power for the spray.



Left—Side view of Speed Sprayer. Right—Speed Sprayer in action, equipped with "head" for single row spraying. One man can run the entire rig.

# You may be the other fellow this year

EVERY YEAR, hail storms destroy some crops and damage a lot more. No one knows just where and when hail will strike. Yet, some farmers are content in the belief that "*it always hails on the other fellow's farm!*" Maybe YOU are the other fellow this year!

It's going to hail this summer! You can be sure of that. And, no section of the country is immune.

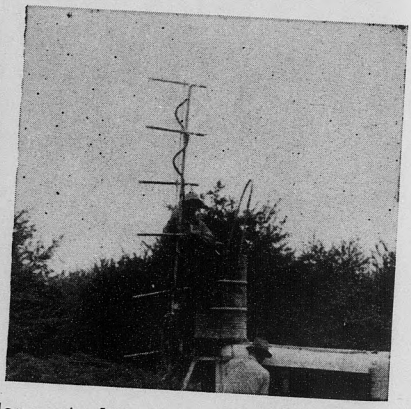
If hail strikes your farm . . . Will you be sorry, or will you be insured? . . . Will you lose your cost of production, or will you collect from a reliable, fair-minded insurance company?

The moderate cost of Hail Insurance pays big dividends when hail strikes. You reap reward from disaster. Over a long period of years, many thousands of farmers have found that it pays to be protected.

You too should do more than just hope it won't hail on your farm. All of the work, worry and money you put into your crops is at stake. Be protected! Buy Hail Insurance early!

See your local agent of: The Ætna Fire Group; The North America Companies; or, The Springfield Fire Group. Or, write for your free copy of the booklet: *Protecting Your Cost of Production*. Address a penny postcard to: G. L. Booker, Supt., Hail Department, 90 John Street, New York, N. Y.

Eight-nozzle brooms mounted on vertical boom on rear of truck. Requires a driver and a spray rig operator.



Vertical boom with swivel guns under central control. Top 2 guns have No. 10 disks; middle 2 guns No. 8 disks and bottom 2 guns No. 6 disks.

## *SOME FIGURES*

Someone with a flare for figures has tried to help visualize the amounts of some farm products farmers are called upon to produce this season. Some of his calculations are: Enough eggs to fill 308,000 stacks of egg cases as high as the Washington Monument; enough cattle and calves for slaughter to make a double line around the world at the Equator; enough milk to fill a strip of quart bottles 200 feet wide along all the Nation's coast line; enough hogs to fill a train of livestock cars reaching from New York to San Francisco, back to New York, and back again to San Francisco; and enough sheep and lambs for slaughter to keep a man counting one a second, 8 hours a night, for 27 months. We have no figures for apples, but even so, our figures would be just so much "apple sauce".

*To Control*

# APPLE SCAB

**THE PLANT DOCTOR PRESCRIBES**

# KOPPERS'
## FLOTATION Sulphur
**(micro-fine)**

AND

## ORTHEX Spreader-Adhesive

**This TIME-PROVEN Spray Combination has demonstrated its value as effective control for Apple Scab.**

**It is especially essential this year that you keep crop protection at highest levels with this non-caustic "FLOATION-ORTHEX" combination.**

SCIENTIFIC
ORTHO
PEST CONTROL

**California Spray-Chemical Corporation**

**Elizabeth, New Jersey**

## CEILING PRICES

Ceiling prices are not popular, but they are an attempt to hold prices close to consumers' incomes. National Apple Institute Bulletin 103 reported that ceiling price is off bland apple syrup used in tobacco conditioning as it was too low, but it will be replaced if the price goes too high. Also, ceiling price on vinegar was raised to 10c per gallon F.O.B. factory. Ceiling was also raised 3c on apple box shook in New England.

Apple growers feel that we cannot bring the public wrath on the industry, so if ceiling prices must be placed on apples, we had better get the growers' ideas presented to the Federal men in order to establish a fair and workable scheme of price basis. Already, one regional meeting of growers and handlers in Cumberland-Shenandoah area has been held, followed by a conference of fruit growers from all parts of the country. These growers were mostly Apple Planning Committee members. They have developed a plan to be submitted at regional hearings. The plan favors a retail price ceiling only, taking the highest present retail price on the best pack of most desirable variety, and including freight from most distant shipping point, and adding a controlled mark-up price. This would make a maximum ceiling, and other varieties and grades would fall in where supply and demand placed them in price. Example: Extra fancy Delicious coming to New York from Washington State would have a wholesale price to which say, a 35% mark-up would be allowed for retail channels. This would establish a national price ceiling. The whole thing is complicated and full of holes, but it is the result of combined growers' opinions and at least gives some practical basis from which to work. Progress reports will be made later.

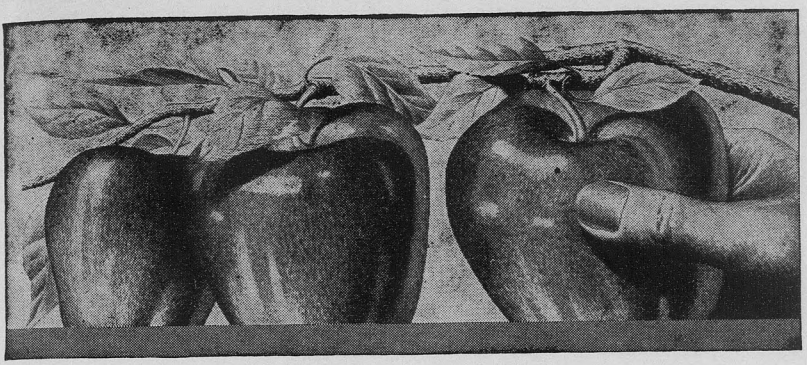
Spray Materials? Read the Ads.

## TIMING APPLE RIPENING

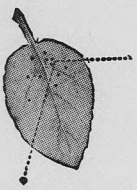
In March, 1943, American Fruit Grower, Dr. H. B. Tukey reviews the work of several investigators regarding the number of days from blossoming of various fruits until time of harvest, in which it is shown that there is a rather definite number of days between *blossoming* and *time of harvest.* Among the figures given by Haller and Fisher of U.S.D.A. and fairly adaptable to Cumberland-Shenandoah Section, where many of the records were made, are: Williams 70 days; Jonathan 130; Grimes 135; Newton 150; Delicious 145 to 150; Golden Delicious 155 to 160; Stayman 160, etc. Since the number of days differs in various parts of the country due to time of bloom, seasonal temperatures, soil moisture, sunlight, rootstocks, etc., Dr. Tukey suggests that growers keep such records for their own orchards, so that they may be able to figure the approximate dates of harvest after they have records of past seasons. The figures gathered so far, by scientific investigators, seem to show that the elapsed time between blossoming and time of harvest is more nearly constant for apples than for any other fruit, followed in order by pear, peach and cherry. It is concluded that the number of days from full bloom to fruit maturity in apples, is a better index of maturity than seed color, ground color of skin, starch test, or pressure test.

Hail Insurance? Read the Ads.

# FOR THE FOOD FRONT—MORE FRUIT!



## STOP THAT RED MITE BUILD-UP with DN-111



Red mites can be stopped. DN-111 does that job for you. It's a new and highly effective summer control developed by Dow for this particular purpose—to stop a red mite build-up.

Don't wait until foliage becomes bronzed. When one or two mites per leaf can be detected, it is time to include DN-111 in your spraying program to get the drop on this particularly persistent pest.

DN-111 combines readily with sulphur and lead arsenate, or it can be used alone in a separate application. It also can be used with App-L-Set if mites are present at the pre-harvest stage, since DN-111 does not have any objectionable spray residue. In making the spray application, do not neglect the under side of the foliage. Complete coverage is essential for best results.

### If You Prefer to Dust Use DN DUST D-4

Some growers prefer to dust rather than spray. Dow supplies DN-Dust D-4 to control red mites. It's of the same basic character as DN-111. Its toxicity is retained four or five days after application, thus killing young mites hatched after the original dusting.

### Other Dow Products

There is a Dow product for practically every spraying and dusting need. Included among the special products for specific purposes is Bordow to control leaf spot, brown rot and bitter rot. Ask your dealer about this copper fungicide developed by Dow for use on fruits and vegetables.

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN
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Insecticides

DOW
CHEMICALS INDISPENSABLE TO INDUSTRY AND VICTORY

## *USED BASKETS AND BOXES*

Apple packages have been hard to get and we have been advised to use as many used boxes and baskets as possible. There are several new types of fiberboard boxes being developed. With a possible reduction in the crop some growers feel that the package situation has been eased a lot, but better not plan on that. It is up to each grower to figure on getting his needed packages. New packages are preferable, but if used packages are desired, try the following:

BALTIMORE—
James Guarino, 734 E. Lombard St.
B. F. Mann, 615 Water Street
M. S. Stein, 62-66 Market Place
A. & P. Food Stores, 230 N. Franklintown Road

WASHINGTON—
Poole's Drayage Co., 1246 4th St., N. E.
Safeway Groceries, 1435 Okie St., N. E.
Jas. T. Warring, 1319 S. Capitol St

There is no ceiling price on used containers other than the general maximum price of last March. A ceiling price may be placed on used boxes, according to rumor.

**Save Fats for Ammunition.**

## *HOW MUCH NITROGEN PER TREE?*

Dr. J. R. Magness, U. S. Horticultural Field Station, Beltsville, Md., speaking before Peninsula Horticultural Society, stated that in analyzing an apple tree for nitrogen necessity, it was found that a 600-pound fruit crop contained 0.33 lbs. of nitrogen (the equivalent of about 2 lbs. of nitrate of soda). The trees and bark contained 0.2 pounds of nitrogen; the roots contained 0.3 lbs. of nitrogen. There were 0.7 lbs. of nitrogen in the leaves but this was considered as a rotation as the leaves rotted and the nitrogen went back into the soil. The total nitrogen found in fruit, tree, bark and roots totaled 0.84 pounds or the equivalent of about 5 to 6 lbs. nitrate of soda or 4 to 4½ pounds sulfate of ammonia. This compares closely with the recommendation of these amounts applied to an average 20 to 25 year old apple tree for growth and fruiting.

**Save Scrap for War Material.**

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## *ANNOUNCEMENT*

Mr. John Chandler, fruit grower of Sterling Junction, Mass., is acting secretary for National Apple Institute, since Truman Nold was drafted for work with Committee on Fruits and Vegetables, Combined Food Board.

You can drive to a picnic at 80 miles an hour—but the ants will be there first.

# YOUR CROPS ARE VITAL!

## *Here is a Program for Greater Yields*

More food... higher yields of better quality fruits and vegetables... *these* are the demands the United Nations are making upon American growers! And they can be met only if *every* grower puts his acres into maximum production and follows this program. ...Know the orchard pests and diseases that must be dealt with—know when they attack—know how to use the proved insecticides and fungicides that will control them —*and you will get better yields of higher quality crops!*

### ⬇ These PROVED Orchard* Brand Products Will Help You ⬇

### ★ APPLE DRITOMIC* SULFUR

A sulfur fungicide made *exclusively* for apples. Its patented Sodium Thiosulfate feature—an "extra wallop" found in no other wettable sulfur—steps up apple scab control. Apple Dritomic Sulfur is especially processed for this tough job. Economical due to low dosage requirements.

### ★ DRITOMIC* SULFUR

*THE "OLD RELIABLE" FOR PEACHES!*

Among the earliest of wettable sulfurs. High in pure elemental sulfur content, and of fine particle size. An established leader for control of peach brown rot. Also effective for apple scab.

### ★ SPRAYCOP*

... A neutral copper fungicide, with high performance records for control of blotch and bitter rot of apples; leaf spot of cherries; black rot of grapes; and other copper-responding fungous diseases. Easier to use and more effective than haphazard home-made Bordeaux mixtures. SprayCop contains no free or uncombined lime which often causes injury to plants in the "lime-sensitive" group.

### ★ MICRO-SPRAY* SULFUR

*FOR THE GROWER WHO PREFERS EXTRA FINE PARTICLE SULFUR!*

A favorite because it's fine as the finest ... films evenly and thoroughly ... is high in pure elemental sulfur content.

### ★ FILMFAST*

... A combined spreader-sticker that helps spread insecticides and fungicides more evenly... improves their adherence. Use Filmfast in all fruit and vegetable sprays to increase their efficiency ... *make them last longer after application!*

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**D-X Nicotine Adds Power to Arsenate of Lead for Better Codling Moth Control**

Authorities agree that there is no substitute for arsenate of lead for codling moth, but that it does need more power. D-X Nicotine supplies this needed power.

Fruit growers in the most heavily infested codling moth areas have demonstrated time and again that the addition of D-X to the regular codling moth schedule reduces stings as well as entries to a lower minimum than was ever believed possible. Growers are getting maximum control by adding D-X Nicotine (diluted 1 to 600 or 800) to two sprays for the first brood and two for the second.

D-X Nicotine is positively the most lethal spray ever developed by the B. G. Pratt laboratories. It not only has the impressive property of building up the kill of codling moth, leaf roller, and hard-to-kill insects, but has amazing ability in the control of aphis (diluted 1 to 800) in the early sprays.

Write for your copy of "D-X Adds Power". Address Department "F".

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